

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: NEO-RAY

Report Number: P332222

Luminaire Tested: **S123DIW-S1165D1030U835-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332222
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S1165D1030U835-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1030 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9022.5 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

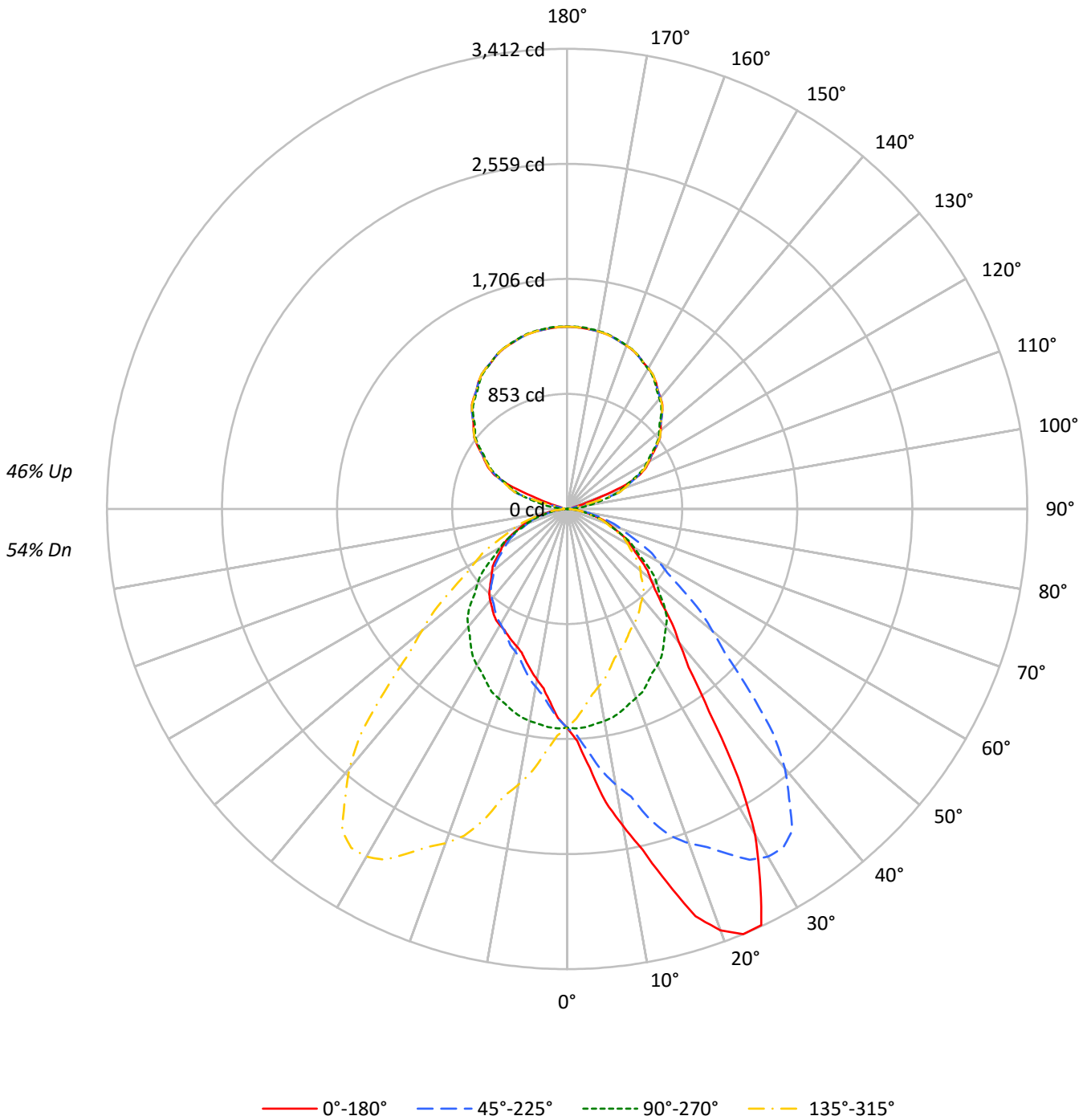
Input Watts (W): 67.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	54	52	51	46
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	47	45	44	39
3	83	73	66	60	76	68	62	57	59	54	50	50	47	44	42	40	37	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	32	29
5	70	58	50	44	64	54	47	42	47	41	37	40	36	33	34	31	28	25
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	21	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17460	17460	17460	17460
5°	20822	17535	15540	17535
10°	26063	17446	14036	17446
15°	31967	17306	13067	17306
20°	38080	17087	12441	17087
25°	40435	16820	12302	16820
30°	34657	16625	12367	16625
35°	24103	16348	12496	16348
40°	18156	16024	12456	16024
45°	15075	15541	12298	15541
50°	13504	14555	12188	14555
55°	12624	13495	12035	13495
60°	11842	12385	11911	12385
65°	11130	11291	11530	11291
70°	10439	10043	10980	10043
75°	9349	8792	10069	8792
80°	8182	7209	8672	7209
85°	6410	5236	5829	5236



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.8	1.8
10°-20°	512.4	5.7
20°-30°	859.9	9.5
30°-40°	973.7	10.8
40°-50°	873.2	9.7
50°-60°	704.7	7.8
60°-70°	491.0	5.4
70°-80°	258.1	2.9
80°-90°	66.9	0.7
90°-100°	49.2	0.5
100°-110°	234.3	2.6
110°-120°	562.7	6.2
120°-130°	716.5	7.9
130°-140°	765.6	8.5
140°-150°	715.9	7.9
150°-160°	577.5	6.4
160°-170°	372.7	4.1
170°-180°	128.4	1.4
0°-30°	1532.1	17.0
0°-40°	2505.8	27.8
0°-60°	4083.7	45.3
0°-90°	4899.7	54.3
90°-120°	846.1	9.4
90°-150°	3044.1	33.7
90°-180°	4123.0	45.7
0°-180°	9022.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1622	1622	1622	1622	1622	
5°	1927	1623	1438	1623	1927	200
15°	2869	1553	1173	1553	2869	828
25°	3405	1416	1036	1416	3405	1493
35°	1834	1244	951	1244	1834	1192
45°	990	1021	808	1021	990	784
55°	673	719	641	719	673	604
65°	437	443	453	443	437	435
75°	225	211	242	211	225	241
85°	52	42	47	42	52	62
90°	30	1	30	1	30	16
95°	38	61	38	61	38	32
105°	44	299	44	299	44	101
115°	591	562	591	562	591	546
125°	808	792	808	792	808	721
135°	995	985	995	985	995	767
145°	1148	1137	1148	1137	1148	717
155°	1250	1252	1250	1252	1250	577
165°	1318	1321	1318	1321	1318	372
175°	1347	1352	1347	1352	1347	128
180°	1352	1352	1352	1352	1352	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1721.5	1720.2	1717.1	1719.6	1714.6	1707.6	1707.0	1700.7	1682.5	1681.2	1676.2
5°	1927.1	1920.8	1920.0	1919.2	1908.2	1893.3	1865.0	1862.6	1824.9	1806.0	1783.3
7.5°	2193.3	2196.6	2185.2	2175.1	2141.5	2119.3	2089.0	2050.2	2003.8	1956.8	1925.5
10°	2384.5	2410.4	2378.2	2356.2	2335.8	2297.2	2252.5	2196.6	2140.8	2075.6	2026.1
12.5°	2589.5	2602.2	2595.7	2575.0	2543.2	2484.6	2405.2	2343.8	2292.4	2183.8	2139.9
15°	2868.6	2916.6	2885.9	2815.2	2816.7	2760.9	2657.2	2543.2	2482.7	2387.6	2258.0
17.5°	3166.0	3172.0	3158.9	3100.0	3060.7	2984.0	2888.3	2779.0	2656.4	2541.4	2403.8
20°	3324.4	3319.7	3292.2	3261.6	3194.0	3134.3	3029.7	2907.9	2750.7	2637.6	2487.4
22.5°	3412.5	3404.6	3391.6	3365.9	3309.7	3245.5	3151.7	3018.6	2868.9	2713.0	2539.6
25°	3404.6	3414.8	3416.4	3409.3	3389.7	3351.2	3277.3	3171.2	3021.9	2821.5	2640.7
27.5°	3096.5	3111.0	3153.0	3190.2	3231.9	3274.3	3268.6	3216.0	3105.5	2932.4	2711.4
30°	2788.4	2757.0	2834.8	2933.1	2999.9	3117.7	3183.8	3187.7	3125.6	2977.1	2761.7
32.5°	2360.9	2395.5	2429.9	2550.8	2696.8	2829.2	2960.6	3066.4	3078.5	2979.6	2791.3
35°	1834.3	1877.6	1940.4	2003.3	2160.5	2295.7	2526.7	2727.9	2888.3	2909.5	2793.9
37.5°	1478.2	1499.5	1539.3	1602.3	1705.1	1865.5	2044.2	2298.5	2530.8	2703.6	2711.1
40°	1292.1	1298.3	1343.1	1391.1	1474.4	1606.4	1767.5	1992.3	2270.5	2511.8	2612.4
42.5°	1152.5	1166.3	1185.3	1231.4	1297.7	1397.1	1546.9	1732.6	1987.6	2265.3	2462.1
45°	990.3	1006.0	1017.8	1048.4	1095.6	1162.4	1266.9	1436.7	1630.8	1917.6	2182.5
47.5°	883.1	884.3	893.1	916.2	948.3	998.4	1072.3	1181.4	1359.6	1592.3	1864.2
50°	806.4	818.9	822.1	840.1	865.3	902.2	963.5	1056.3	1202.5	1406.8	1656.7
52.5°	752.3	756.1	764.9	777.9	799.9	828.7	881.8	954.4	1069.2	1243.3	1473.1
55°	672.7	672.7	681.4	691.6	704.2	730.1	765.5	818.9	906.2	1041.3	1231.5
57.5°	599.2	603.1	609.2	612.4	623.1	640.2	669.8	710.3	775.4	879.4	1030.7
60°	550.1	557.2	556.4	562.7	572.2	585.5	610.7	643.7	701.8	785.1	912.5
62.5°	507.4	506.9	506.8	514.3	523.7	536.5	552.8	581.4	630.8	704.7	813.1
65°	437.0	435.4	440.9	445.6	448.8	458.2	470.8	495.9	528.9	583.9	668.0
67.5°	374.4	369.9	372.8	374.4	379.8	387.1	398.9	414.5	440.7	484.9	548.3
70°	331.7	327.7	326.9	328.5	333.2	338.7	347.4	362.3	386.7	422.0	468.4
72.5°	287.6	285.0	284.8	288.3	290.5	294.1	300.2	313.9	333.2	359.8	403.0
75°	224.8	224.8	224.8	225.6	227.9	231.1	235.8	242.8	257.8	276.6	305.7
77.5°	168.5	168.3	167.4	167.2	170.7	172.1	173.2	179.8	188.1	200.9	222.1
80°	132.0	128.1	129.7	132.0	133.6	134.4	136.8	138.3	145.4	152.5	167.4
82.5°	98.1	94.8	95.1	98.7	99.0	99.8	102.2	104.4	107.0	113.5	121.5
85°	51.9	51.9	52.7	52.7	53.4	52.7	55.0	55.8	55.8	59.7	64.4
87.5°	24.9	23.5	24.1	24.6	23.9	24.4	24.8	25.3	25.7	26.2	26.2
90°	30.1	29.7	29.2	28.8	28.3	27.7	26.8	25.9	25.0	24.1	21.2
92.5°	33.3	33.1	32.8	32.5	32.3	31.4	30.0	28.6	27.1	25.7	23.5
95°	38.2	38.2	38.2	38.2	38.2	37.4	35.8	34.3	32.7	31.1	28.7
97.5°	41.4	41.2	40.9	40.7	40.5	39.5	37.7	35.9	34.1	32.3	48.4
100°	42.2	42.0	41.7	41.5	41.3	40.3	38.5	36.7	34.9	33.1	68.0
102.5°	43.0	42.6	42.2	41.8	41.4	43.9	49.5	55.0	60.6	66.1	104.1
105°	44.2	43.7	43.3	42.9	42.4	61.9	101.4	141.0	180.5	220.0	240.1
107.5°	138.8	168.6	198.4	228.1	257.9	287.3	316.3	345.2	374.2	403.2	400.0
110°	276.2	308.1	340.0	372.0	403.9	423.5	430.9	438.3	445.6	453.0	450.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	473.9	480.6	487.4	494.1	500.8	504.1	504.0	503.9	503.7	503.6	501.2
115°	590.6	589.7	588.8	587.9	587.0	585.5	583.2	581.0	578.8	576.5	574.5
117.5°	656.1	655.9	655.7	655.5	655.4	654.4	652.6	650.8	649.0	647.2	646.2
120°	701.1	701.1	701.1	701.1	701.1	700.2	698.4	696.6	694.8	693.0	692.4
122.5°	745.3	745.1	744.9	744.7	744.6	743.8	742.6	741.3	740.1	738.8	738.0
125°	807.5	807.1	806.6	806.2	805.8	805.3	804.9	804.4	804.0	803.5	802.6
127.5°	867.4	867.9	868.3	868.7	869.2	869.1	868.3	867.6	866.9	866.2	865.1
130°	906.0	906.4	906.9	907.3	907.8	907.5	906.6	905.8	904.9	904.0	903.1
132.5°	941.3	942.0	942.6	943.2	943.8	943.7	942.8	941.9	941.0	940.1	939.4
135°	995.4	996.0	996.7	997.4	998.0	998.0	997.4	996.7	996.0	995.4	994.5
137.5°	1046.2	1046.6	1047.1	1047.5	1048.0	1047.7	1046.6	1045.5	1044.4	1043.4	1042.9
140°	1076.7	1077.2	1077.6	1078.1	1078.5	1078.3	1077.4	1076.5	1075.6	1074.7	1074.0
142.5°	1104.8	1105.5	1106.1	1106.7	1107.3	1107.3	1106.6	1105.9	1105.2	1104.4	1103.8
145°	1148.0	1148.0	1148.0	1148.0	1148.0	1147.8	1147.4	1146.9	1146.5	1146.0	1145.6
147.5°	1180.2	1181.2	1182.2	1183.3	1184.3	1184.6	1184.1	1183.7	1183.2	1182.8	1182.3
150°	1204.3	1205.0	1205.6	1206.3	1207.0	1207.1	1206.6	1206.2	1205.7	1205.3	1204.8
152.5°	1223.6	1224.6	1225.6	1226.6	1227.7	1227.8	1227.0	1226.2	1225.4	1224.6	1224.3
155°	1250.5	1251.8	1253.2	1254.5	1255.8	1256.0	1254.8	1253.7	1252.6	1251.5	1251.3
157.5°	1273.2	1274.9	1276.7	1278.4	1280.1	1280.3	1279.0	1277.7	1276.3	1275.0	1275.2
160°	1287.6	1289.2	1290.8	1292.3	1293.9	1294.0	1292.7	1291.3	1290.0	1288.7	1288.9
162.5°	1301.3	1302.7	1304.1	1305.5	1306.8	1306.8	1305.3	1303.7	1302.2	1300.7	1300.9
165°	1317.8	1319.3	1320.9	1322.5	1324.0	1323.9	1322.1	1320.3	1318.6	1316.8	1317.0
167.5°	1329.6	1331.4	1333.2	1335.0	1336.8	1336.8	1335.0	1333.2	1331.4	1329.6	1329.6
170°	1336.9	1338.6	1340.4	1342.2	1344.0	1344.0	1342.2	1340.4	1338.6	1336.9	1336.9
172.5°	1340.9	1342.8	1344.8	1346.8	1348.7	1348.8	1347.0	1345.3	1343.5	1341.7	1341.5
175°	1346.9	1348.7	1350.5	1352.3	1354.1	1354.2	1352.6	1351.0	1349.5	1347.9	1347.7
177.5°	1348.7	1350.5	1352.3	1354.1	1355.9	1356.0	1354.6	1353.2	1351.8	1350.3	1350.1
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1672.4	1667.4	1662.4	1653.6	1646.0	1635.3	1632.2	1628.4	1617.1	1607.1	1599.5
5°	1774.6	1755.7	1728.2	1703.1	1682.7	1655.2	1639.4	1622.9	1599.3	1578.1	1560.8
7.5°	1881.5	1844.4	1801.6	1755.4	1712.4	1670.9	1637.4	1607.5	1574.5	1543.2	1518.9
10°	1966.4	1912.9	1853.2	1788.8	1733.7	1680.3	1635.5	1596.2	1553.8	1516.8	1486.2
12.5°	2063.2	1984.0	1901.6	1823.3	1758.3	1684.1	1629.8	1579.9	1531.8	1487.3	1452.9
15°	2177.8	2077.2	1979.7	1872.1	1773.0	1680.3	1615.9	1553.0	1497.2	1451.6	1407.6
17.5°	2282.2	2168.2	2039.8	1908.8	1789.4	1679.4	1589.1	1518.1	1448.3	1392.5	1348.6
20°	2341.3	2211.6	2066.2	1930.2	1798.2	1675.6	1576.6	1491.7	1416.2	1357.3	1307.8
22.5°	2392.2	2240.5	2090.1	1944.7	1797.6	1665.5	1553.3	1465.9	1384.2	1326.5	1273.8
25°	2445.0	2263.5	2112.6	1942.0	1777.8	1641.0	1515.3	1416.2	1334.5	1266.9	1212.7
27.5°	2490.3	2261.9	2082.8	1899.4	1746.6	1609.6	1475.3	1369.1	1282.3	1208.9	1153.9
30°	2520.4	2265.0	2052.0	1870.5	1716.5	1575.0	1444.5	1337.6	1246.5	1171.8	1119.9
32.5°	2539.3	2263.1	2023.7	1830.3	1668.7	1543.5	1411.2	1300.5	1206.9	1133.5	1083.5
35°	2550.3	2249.3	1975.0	1747.1	1591.5	1469.7	1358.9	1244.1	1145.9	1077.5	1020.9
37.5°	2528.3	2220.2	1918.4	1666.9	1496.6	1376.6	1283.4	1185.6	1091.6	1016.4	967.6
40°	2493.7	2201.4	1874.4	1610.4	1431.2	1315.6	1236.3	1140.4	1047.6	976.1	930.5
42.5°	2427.7	2163.0	1826.0	1547.5	1363.3	1247.7	1174.6	1094.5	1006.8	939.6	894.1
45°	2266.6	2079.5	1753.4	1453.2	1263.0	1143.5	1079.1	1020.9	941.5	876.3	837.0
47.5°	2043.1	1954.0	1648.4	1353.7	1158.3	1043.4	976.4	929.6	871.6	818.9	781.2
50°	1887.8	1850.8	1577.3	1285.8	1088.5	976.1	911.7	869.2	827.6	774.9	740.3
52.5°	1708.6	1731.4	1494.4	1215.3	1017.5	907.0	846.3	812.6	774.8	731.5	701.4
55°	1456.3	1538.8	1351.0	1097.1	911.7	806.4	749.0	719.1	697.1	664.9	639.0
57.5°	1220.1	1325.1	1196.0	975.3	807.8	716.9	661.9	629.4	615.2	598.4	578.0
60°	1079.9	1183.6	1085.4	893.6	738.0	651.5	602.8	575.3	561.1	549.4	532.1
62.5°	954.7	1059.7	977.2	810.6	669.4	589.3	546.8	520.0	509.0	502.8	488.1
65°	782.8	873.2	818.1	681.4	571.4	500.6	462.1	443.3	433.0	430.7	421.3
67.5°	637.1	705.9	665.8	565.2	478.6	417.5	384.8	368.8	360.9	360.1	353.0
70°	541.5	605.9	575.3	484.1	409.5	361.5	333.2	319.1	314.4	313.6	309.7
72.5°	467.3	512.3	487.9	411.8	354.1	310.6	289.8	275.1	269.7	270.8	268.2
75°	345.8	379.6	365.5	312.8	266.4	238.1	220.8	211.4	206.7	209.1	205.9
77.5°	248.8	270.2	257.5	221.0	192.4	172.0	159.2	153.4	149.2	149.0	147.6
80°	187.8	200.4	193.3	171.3	147.8	130.5	120.2	116.3	114.0	113.2	112.4
82.5°	133.8	144.5	136.1	121.0	105.0	94.6	88.8	83.6	81.9	82.4	81.6
85°	67.6	71.5	68.4	58.9	52.7	47.9	44.8	42.4	40.9	41.7	40.1
87.5°	26.9	27.0	24.5	21.5	19.8	17.4	17.0	15.3	14.5	14.9	14.7
90°	18.3	15.4	12.5	9.9	7.7	5.5	3.2	1.0	3.2	5.5	7.7
92.5°	21.3	19.2	17.0	16.2	16.8	17.4	18.1	18.7	18.1	17.4	16.8
95°	26.2	23.8	21.3	24.7	33.8	43.0	52.1	61.3	52.1	43.0	33.8
97.5°	64.5	80.6	96.6	106.7	110.8	114.9	119.0	123.1	119.0	114.9	110.8
100°	102.8	137.6	172.4	187.6	183.1	178.7	174.2	169.7	174.2	178.7	183.1
102.5°	142.2	180.2	218.2	235.6	232.4	229.2	226.0	222.8	226.0	229.2	232.4
105°	260.1	280.2	300.3	309.1	306.7	304.2	301.8	299.3	301.8	304.2	306.7
107.5°	396.8	393.7	390.5	387.9	386.0	384.0	382.0	380.1	382.0	384.0	386.0
110°	448.1	445.6	443.2	441.0	439.3	437.5	435.7	433.9	435.7	437.5	439.3



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	498.7	496.2	493.8	491.8	490.2	488.5	486.9	485.3	486.9	488.5	490.2
115°	572.5	570.5	568.5	566.8	565.5	564.1	562.8	561.5	562.8	564.1	565.5
117.5°	645.2	644.2	643.1	641.8	640.1	638.5	636.8	635.2	636.8	638.5	640.1
120°	691.7	691.0	690.4	689.0	687.0	685.0	683.0	681.0	683.0	685.0	687.0
122.5°	737.1	736.3	735.4	734.2	732.5	730.9	729.2	727.6	729.2	730.9	732.5
125°	801.7	800.8	800.0	798.6	796.8	795.0	793.3	791.5	793.3	795.0	796.8
127.5°	864.1	863.0	861.9	860.5	858.7	856.9	855.1	853.3	855.1	856.9	858.7
130°	902.2	901.3	900.4	899.1	897.3	895.5	893.7	891.9	893.7	895.5	897.3
132.5°	938.7	938.0	937.3	936.0	934.2	932.4	930.7	928.9	930.7	932.4	934.2
135°	993.6	992.7	991.8	990.7	989.3	988.0	986.7	985.3	986.7	988.0	989.3
137.5°	1042.4	1041.9	1041.4	1040.3	1038.6	1036.9	1035.2	1033.5	1035.2	1036.9	1038.6
140°	1073.4	1072.7	1072.0	1071.0	1069.7	1068.4	1067.0	1065.7	1067.0	1068.4	1069.7
142.5°	1103.1	1102.4	1101.8	1100.8	1099.4	1098.1	1096.7	1095.4	1096.7	1098.1	1099.4
145°	1145.1	1144.7	1144.2	1143.2	1141.7	1140.1	1138.5	1137.0	1138.5	1140.1	1141.7
147.5°	1181.9	1181.4	1181.0	1180.3	1179.2	1178.2	1177.2	1176.2	1177.2	1178.2	1179.2
150°	1204.4	1203.9	1203.5	1202.9	1202.3	1201.6	1200.9	1200.3	1200.9	1201.6	1202.3
152.5°	1224.0	1223.8	1223.5	1223.2	1222.9	1222.6	1222.3	1222.0	1222.3	1222.6	1222.9
155°	1251.0	1250.8	1250.6	1250.7	1251.2	1251.6	1252.0	1252.5	1252.0	1251.6	1251.2
157.5°	1275.4	1275.7	1275.9	1276.0	1276.1	1276.1	1276.2	1276.2	1276.2	1276.1	1276.1
160°	1289.1	1289.3	1289.5	1289.8	1290.0	1290.2	1290.4	1290.7	1290.4	1290.2	1290.0
162.5°	1301.2	1301.4	1301.6	1302.0	1302.6	1303.2	1303.7	1304.3	1303.7	1303.2	1302.6
165°	1317.2	1317.4	1317.7	1318.1	1318.8	1319.5	1320.1	1320.8	1320.1	1319.5	1318.8
167.5°	1329.6	1329.6	1329.6	1330.1	1331.0	1331.9	1332.8	1333.6	1332.8	1331.9	1331.0
170°	1336.9	1336.9	1336.9	1337.3	1338.2	1339.1	1340.0	1340.9	1340.0	1339.1	1338.2
172.5°	1341.3	1341.1	1341.0	1341.4	1342.5	1343.6	1344.6	1345.7	1344.6	1343.6	1342.5
175°	1347.5	1347.2	1347.0	1347.5	1348.6	1349.7	1350.8	1351.9	1350.8	1349.7	1348.6
177.5°	1350.0	1349.8	1349.6	1350.0	1350.9	1351.8	1352.6	1353.5	1352.6	1351.8	1350.9
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1595.1	1590.7	1584.4	1575.0	1567.4	1555.5	1555.5	1557.4	1557.4	1556.8	1555.5
5°	1546.7	1534.9	1520.8	1504.3	1487.0	1469.7	1466.5	1460.2	1455.5	1452.4	1448.5
7.5°	1495.6	1474.7	1454.1	1431.0	1409.9	1392.5	1380.4	1370.3	1363.9	1357.0	1351.9
10°	1461.0	1435.1	1410.7	1386.4	1359.6	1338.4	1325.1	1315.6	1308.6	1302.3	1299.1
12.5°	1420.2	1390.5	1363.6	1340.5	1311.2	1289.4	1276.7	1272.2	1263.9	1250.7	1243.8
15°	1360.4	1332.9	1300.7	1265.3	1251.2	1224.5	1209.5	1202.5	1197.7	1187.5	1184.4
17.5°	1309.3	1273.3	1237.2	1210.8	1184.5	1162.8	1154.5	1145.7	1139.4	1131.1	1128.6
20°	1268.5	1236.3	1203.2	1175.0	1147.4	1123.9	1116.8	1110.5	1104.2	1100.3	1097.1
22.5°	1227.0	1194.8	1167.4	1141.0	1111.6	1096.2	1088.5	1081.6	1077.2	1074.5	1071.4
25°	1168.7	1140.4	1109.7	1086.1	1062.6	1052.3	1047.6	1043.7	1040.6	1036.6	1035.8
27.5°	1116.5	1085.7	1060.8	1038.8	1021.9	1013.4	1008.8	1006.9	1007.6	1009.0	1009.9
30°	1077.5	1049.2	1028.8	1009.9	994.2	986.3	985.5	985.5	988.7	989.5	991.0
32.5°	1041.7	1018.4	998.0	979.7	967.8	962.4	965.4	965.4	967.9	970.0	972.8
35°	989.5	969.0	953.3	937.6	927.4	929.7	931.3	932.9	936.8	941.5	944.7
37.5°	939.6	921.9	905.5	893.3	888.6	892.8	896.6	899.9	904.4	908.1	911.2
40°	903.8	890.4	874.7	863.7	865.3	867.7	870.8	874.7	878.7	881.0	884.2
42.5°	870.5	856.5	844.6	835.4	837.6	840.6	842.5	844.6	849.1	853.4	855.2
45°	819.7	808.7	797.7	792.2	793.8	795.4	796.9	799.3	803.2	806.4	807.1
47.5°	762.7	755.0	747.6	742.2	744.7	744.1	746.2	751.2	752.4	754.3	758.7
50°	726.2	719.1	710.5	708.9	708.9	708.9	709.7	716.0	716.0	719.1	722.3
52.5°	686.0	681.4	675.9	673.1	671.8	671.8	675.1	678.3	679.5	683.9	687.1
55°	626.4	621.7	616.9	614.6	613.0	614.6	620.9	622.4	626.4	628.7	631.1
57.5°	564.3	560.7	556.9	555.6	555.3	557.4	560.8	565.5	566.5	573.7	577.3
60°	523.4	517.9	514.8	514.8	513.2	520.3	518.7	526.6	528.1	532.9	538.4
62.5°	481.3	473.9	472.7	472.7	474.9	476.9	479.1	482.6	486.6	492.6	496.9
65°	413.4	409.5	415.0	414.2	412.6	417.3	417.3	421.3	426.0	431.5	440.1
67.5°	349.1	347.1	347.5	347.5	349.9	352.6	354.8	358.2	363.9	369.7	375.4
70°	305.7	308.1	304.2	307.3	309.7	310.4	312.0	316.7	323.0	326.9	333.2
72.5°	263.6	263.4	263.9	265.2	267.5	268.9	270.5	275.9	282.8	286.1	291.1
75°	202.8	202.0	204.3	204.3	208.3	209.8	211.4	213.8	220.1	224.8	228.7
77.5°	148.1	149.0	148.5	151.2	150.1	150.4	155.3	157.7	158.3	167.6	169.6
80°	111.6	113.2	114.0	114.7	115.5	114.0	119.5	121.8	121.8	127.3	131.2
82.5°	80.2	81.1	83.2	83.9	84.1	85.7	86.1	87.9	89.8	92.1	97.3
85°	40.1	42.4	43.2	42.4	43.2	41.7	44.0	44.8	45.6	45.6	45.6
87.5°	14.6	15.7	15.7	16.9	16.8	18.0	18.2	17.1	17.3	19.4	17.0
90°	9.9	12.5	15.4	18.3	21.2	24.1	25.0	25.9	26.8	27.7	28.3
92.5°	16.2	17.0	19.2	21.3	23.5	25.7	27.1	28.6	30.0	31.4	32.3
95°	24.7	21.3	23.8	26.2	28.7	31.1	32.7	34.3	35.8	37.4	38.2
97.5°	106.7	96.6	80.6	64.5	48.4	32.3	34.1	35.9	37.7	39.5	40.5
100°	187.6	172.4	137.6	102.8	68.0	33.1	34.9	36.7	38.5	40.3	41.3
102.5°	235.6	218.2	180.2	142.2	104.1	66.1	60.6	55.0	49.5	43.9	41.4
105°	309.1	300.3	280.2	260.1	240.1	220.0	180.5	141.0	101.4	61.9	42.4
107.5°	387.9	390.5	393.7	396.8	400.0	403.2	374.2	345.2	316.3	287.3	257.9
110°	441.0	443.2	445.6	448.1	450.5	453.0	445.6	438.3	430.9	423.5	403.9



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	491.8	493.8	496.2	498.7	501.2	503.6	503.7	503.9	504.0	504.1	500.8
115°	566.8	568.5	570.5	572.5	574.5	576.5	578.8	581.0	583.2	585.5	587.0
117.5°	641.8	643.1	644.2	645.2	646.2	647.2	649.0	650.8	652.6	654.4	655.4
120°	689.0	690.4	691.0	691.7	692.4	693.0	694.8	696.6	698.4	700.2	701.1
122.5°	734.2	735.4	736.3	737.1	738.0	738.8	740.1	741.3	742.6	743.8	744.6
125°	798.6	800.0	800.8	801.7	802.6	803.5	804.0	804.4	804.9	805.3	805.8
127.5°	860.5	861.9	863.0	864.1	865.1	866.2	866.9	867.6	868.3	869.1	869.2
130°	899.1	900.4	901.3	902.2	903.1	904.0	904.9	905.8	906.6	907.5	907.8
132.5°	936.0	937.3	938.0	938.7	939.4	940.1	941.0	941.9	942.8	943.7	943.8
135°	990.7	991.8	992.7	993.6	994.5	995.4	996.0	996.7	997.4	998.0	998.0
137.5°	1040.3	1041.4	1041.9	1042.4	1042.9	1043.4	1044.4	1045.5	1046.6	1047.7	1048.0
140°	1071.0	1072.0	1072.7	1073.4	1074.0	1074.7	1075.6	1076.5	1077.4	1078.3	1078.5
142.5°	1100.8	1101.8	1102.4	1103.1	1103.8	1104.4	1105.2	1105.9	1106.6	1107.3	1107.3
145°	1143.2	1144.2	1144.7	1145.1	1145.6	1146.0	1146.5	1146.9	1147.4	1147.8	1148.0
147.5°	1180.3	1181.0	1181.4	1181.9	1182.3	1182.8	1183.2	1183.7	1184.1	1184.6	1184.3
150°	1202.9	1203.5	1203.9	1204.4	1204.8	1205.3	1205.7	1206.2	1206.6	1207.1	1207.0
152.5°	1223.2	1223.5	1223.8	1224.0	1224.3	1224.6	1225.4	1226.2	1227.0	1227.8	1227.7
155°	1250.7	1250.6	1250.8	1251.0	1251.3	1251.5	1252.6	1253.7	1254.8	1256.0	1255.8
157.5°	1276.0	1275.9	1275.7	1275.4	1275.2	1275.0	1276.3	1277.7	1279.0	1280.3	1280.1
160°	1289.8	1289.5	1289.3	1289.1	1288.9	1288.7	1290.0	1291.3	1292.7	1294.0	1293.9
162.5°	1302.0	1301.6	1301.4	1301.2	1300.9	1300.7	1302.2	1303.7	1305.3	1306.8	1306.8
165°	1318.1	1317.7	1317.4	1317.2	1317.0	1316.8	1318.6	1320.3	1322.1	1323.9	1324.0
167.5°	1330.1	1329.6	1329.6	1329.6	1329.6	1329.6	1331.4	1333.2	1335.0	1336.8	1336.8
170°	1337.3	1336.9	1336.9	1336.9	1336.9	1336.9	1338.6	1340.4	1342.2	1344.0	1344.0
172.5°	1341.4	1341.0	1341.1	1341.3	1341.5	1341.7	1343.5	1345.3	1347.0	1348.8	1348.7
175°	1347.5	1347.0	1347.2	1347.5	1347.7	1347.9	1349.5	1351.0	1352.6	1354.2	1354.1
177.5°	1350.0	1349.6	1349.8	1350.0	1350.1	1350.3	1351.8	1353.2	1354.6	1356.0	1355.9
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1551.1	1550.5	1554.9	1551.7	1554.9	1550.5	1551.1	1555.5	1556.8	1557.4	1557.4
5°	1443.7	1446.1	1438.2	1438.2	1438.2	1446.1	1443.7	1448.5	1452.4	1455.5	1460.2
7.5°	1348.2	1344.7	1345.0	1340.8	1345.0	1344.7	1348.2	1351.9	1357.0	1363.9	1370.3
10°	1289.7	1285.0	1283.4	1284.2	1283.4	1285.0	1289.7	1299.1	1302.3	1308.6	1315.6
12.5°	1241.3	1240.3	1230.0	1230.1	1230.0	1240.3	1241.3	1243.8	1250.7	1263.9	1272.2
15°	1184.4	1169.5	1167.9	1172.6	1167.9	1169.5	1184.4	1184.4	1187.5	1197.7	1202.5
17.5°	1127.3	1119.5	1119.9	1117.6	1119.9	1119.5	1127.3	1128.6	1131.1	1139.4	1145.7
20°	1097.1	1092.4	1091.6	1086.1	1091.6	1092.4	1097.1	1097.1	1100.3	1104.2	1110.5
22.5°	1069.5	1067.9	1068.4	1062.3	1068.4	1067.9	1069.5	1071.4	1074.5	1077.2	1081.6
25°	1035.1	1039.0	1035.8	1035.8	1035.8	1039.0	1035.1	1035.8	1036.6	1040.6	1043.7
27.5°	1011.8	1011.6	1010.1	1010.1	1010.1	1011.6	1011.8	1009.9	1009.0	1007.6	1006.9
30°	994.2	993.4	995.0	995.0	995.0	993.4	994.2	991.0	989.5	988.7	985.5
32.5°	976.6	977.7	978.0	978.6	978.0	977.7	976.6	972.8	970.0	967.9	965.4
35°	949.4	950.2	952.5	951.0	952.5	950.2	949.4	944.7	941.5	936.8	932.9
37.5°	912.6	916.2	915.4	916.7	915.4	916.2	912.6	911.2	908.1	904.4	899.9
40°	884.9	887.3	886.5	886.5	886.5	887.3	884.9	884.2	881.0	878.7	874.7
42.5°	856.7	858.4	856.3	855.1	856.3	858.4	856.7	855.2	853.4	849.1	844.6
45°	810.3	808.7	811.1	807.9	811.1	808.7	810.3	807.1	806.4	803.2	799.3
47.5°	758.4	760.0	760.6	763.0	760.6	760.0	758.4	758.7	754.3	752.4	751.2
50°	723.8	728.5	728.5	727.8	728.5	728.5	723.8	722.3	719.1	716.0	716.0
52.5°	689.9	692.1	695.2	695.1	695.2	692.1	689.9	687.1	683.9	679.5	678.3
55°	637.4	639.0	640.5	641.3	640.5	639.0	637.4	631.1	628.7	626.4	622.4
57.5°	583.0	582.4	586.1	587.2	586.1	582.4	583.0	577.3	573.7	566.5	565.5
60°	544.6	544.6	550.9	553.3	550.9	544.6	544.6	538.4	532.9	528.1	526.6
62.5°	503.8	506.3	512.6	509.3	512.6	506.3	503.8	496.9	492.6	486.6	482.6
65°	444.0	450.3	449.5	452.7	449.5	450.3	444.0	440.1	431.5	426.0	421.3
67.5°	381.6	385.6	391.2	391.7	391.2	385.6	381.6	375.4	369.7	363.9	358.2
70°	339.5	343.4	346.6	348.9	346.6	343.4	339.5	333.2	326.9	323.0	316.7
72.5°	298.7	300.7	308.2	304.9	308.2	300.7	298.7	291.1	286.1	282.8	275.9
75°	234.2	239.7	244.4	242.1	244.4	239.7	234.2	228.7	224.8	220.1	213.8
77.5°	173.2	178.7	180.9	178.9	180.9	178.7	173.2	169.6	167.6	158.3	157.7
80°	136.8	136.0	140.7	139.9	140.7	136.0	136.8	131.2	127.3	121.8	121.8
82.5°	100.3	99.5	101.7	102.2	101.7	99.5	100.3	97.3	92.1	89.8	87.9
85°	48.7	51.1	47.9	47.2	47.9	51.1	48.7	45.6	45.6	45.6	44.8
87.5°	17.1	17.2	16.6	16.1	16.6	17.2	17.1	17.0	19.4	17.3	17.1
90°	28.8	29.2	29.7	30.1	29.7	29.2	28.8	28.3	27.7	26.8	25.9
92.5°	32.5	32.8	33.1	33.3	33.1	32.8	32.5	32.3	31.4	30.0	28.6
95°	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	37.4	35.8	34.3
97.5°	40.7	40.9	41.2	41.4	41.2	40.9	40.7	40.5	39.5	37.7	35.9
100°	41.5	41.7	42.0	42.2	42.0	41.7	41.5	41.3	40.3	38.5	36.7
102.5°	41.8	42.2	42.6	43.0	42.6	42.2	41.8	41.4	43.9	49.5	55.0
105°	42.9	43.3	43.7	44.2	43.7	43.3	42.9	42.4	61.9	101.4	141.0
107.5°	228.1	198.4	168.6	138.8	168.6	198.4	228.1	257.9	287.3	316.3	345.2
110°	372.0	340.0	308.1	276.2	308.1	340.0	372.0	403.9	423.5	430.9	438.3



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	494.1	487.4	480.6	473.9	480.6	487.4	494.1	500.8	504.1	504.0	503.9
115°	587.9	588.8	589.7	590.6	589.7	588.8	587.9	587.0	585.5	583.2	581.0
117.5°	655.5	655.7	655.9	656.1	655.9	655.7	655.5	655.4	654.4	652.6	650.8
120°	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	700.2	698.4	696.6
122.5°	744.7	744.9	745.1	745.3	745.1	744.9	744.7	744.6	743.8	742.6	741.3
125°	806.2	806.6	807.1	807.5	807.1	806.6	806.2	805.8	805.3	804.9	804.4
127.5°	868.7	868.3	867.9	867.4	867.9	868.3	868.7	869.2	869.1	868.3	867.6
130°	907.3	906.9	906.4	906.0	906.4	906.9	907.3	907.8	907.5	906.6	905.8
132.5°	943.2	942.6	942.0	941.3	942.0	942.6	943.2	943.8	943.7	942.8	941.9
135°	997.4	996.7	996.0	995.4	996.0	996.7	997.4	998.0	998.0	997.4	996.7
137.5°	1047.5	1047.1	1046.6	1046.2	1046.6	1047.1	1047.5	1048.0	1047.7	1046.6	1045.5
140°	1078.1	1077.6	1077.2	1076.7	1077.2	1077.6	1078.1	1078.5	1078.3	1077.4	1076.5
142.5°	1106.7	1106.1	1105.5	1104.8	1105.5	1106.1	1106.7	1107.3	1107.3	1106.6	1105.9
145°	1148.0	1148.0	1148.0	1148.0	1148.0	1148.0	1148.0	1148.0	1147.8	1147.4	1146.9
147.5°	1183.3	1182.2	1181.2	1180.2	1181.2	1182.2	1183.3	1184.3	1184.6	1184.1	1183.7
150°	1206.3	1205.6	1205.0	1204.3	1205.0	1205.6	1206.3	1207.0	1207.1	1206.6	1206.2
152.5°	1226.6	1225.6	1224.6	1223.6	1224.6	1225.6	1226.6	1227.7	1227.8	1227.0	1226.2
155°	1254.5	1253.2	1251.8	1250.5	1251.8	1253.2	1254.5	1255.8	1256.0	1254.8	1253.7
157.5°	1278.4	1276.7	1274.9	1273.2	1274.9	1276.7	1278.4	1280.1	1280.3	1279.0	1277.7
160°	1292.3	1290.8	1289.2	1287.6	1289.2	1290.8	1292.3	1293.9	1294.0	1292.7	1291.3
162.5°	1305.5	1304.1	1302.7	1301.3	1302.7	1304.1	1305.5	1306.8	1306.8	1305.3	1303.7
165°	1322.5	1320.9	1319.3	1317.8	1319.3	1320.9	1322.5	1324.0	1323.9	1322.1	1320.3
167.5°	1335.0	1333.2	1331.4	1329.6	1331.4	1333.2	1335.0	1336.8	1336.8	1335.0	1333.2
170°	1342.2	1340.4	1338.6	1336.9	1338.6	1340.4	1342.2	1344.0	1344.0	1342.2	1340.4
172.5°	1346.8	1344.8	1342.8	1340.9	1342.8	1344.8	1346.8	1348.7	1348.8	1347.0	1345.3
175°	1352.3	1350.5	1348.7	1346.9	1348.7	1350.5	1352.3	1354.1	1354.2	1352.6	1351.0
177.5°	1354.1	1352.3	1350.5	1348.7	1350.5	1352.3	1354.1	1355.9	1356.0	1354.6	1353.2
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1555.5	1555.5	1567.4	1575.0	1584.4	1590.7	1595.1	1599.5	1607.1	1617.1	1628.4
5°	1466.5	1469.7	1487.0	1504.3	1520.8	1534.9	1546.7	1560.8	1578.1	1599.3	1622.9
7.5°	1380.4	1392.5	1409.9	1431.0	1454.1	1474.7	1495.6	1518.9	1543.2	1574.5	1607.5
10°	1325.1	1338.4	1359.6	1386.4	1410.7	1435.1	1461.0	1486.2	1516.8	1553.8	1596.2
12.5°	1276.7	1289.4	1311.2	1340.5	1363.6	1390.5	1420.2	1452.9	1487.3	1531.8	1579.9
15°	1209.5	1224.5	1251.2	1265.3	1300.7	1332.9	1360.4	1407.6	1451.6	1497.2	1553.0
17.5°	1154.5	1162.8	1184.5	1210.8	1237.2	1273.3	1309.3	1348.6	1392.5	1448.3	1518.1
20°	1116.8	1123.9	1147.4	1175.0	1203.2	1236.3	1268.5	1307.8	1357.3	1416.2	1491.7
22.5°	1088.5	1096.2	1111.6	1141.0	1167.4	1194.8	1227.0	1273.8	1326.5	1384.2	1465.9
25°	1047.6	1052.3	1062.6	1086.1	1109.7	1140.4	1168.7	1212.7	1266.9	1334.5	1416.2
27.5°	1008.8	1013.4	1021.9	1038.8	1060.8	1085.7	1116.5	1153.9	1208.9	1282.3	1369.1
30°	985.5	986.3	994.2	1009.9	1028.8	1049.2	1077.5	1119.9	1171.8	1246.5	1337.6
32.5°	965.4	962.4	967.8	979.7	998.0	1018.4	1041.7	1083.5	1133.5	1206.9	1300.5
35°	931.3	929.7	927.4	937.6	953.3	969.0	989.5	1020.9	1077.5	1145.9	1244.1
37.5°	896.6	892.8	888.6	893.3	905.5	921.9	939.6	967.6	1016.4	1091.6	1185.6
40°	870.8	867.7	865.3	863.7	874.7	890.4	903.8	930.5	976.1	1047.6	1140.4
42.5°	842.5	840.6	837.6	835.4	844.6	856.5	870.5	894.1	939.6	1006.8	1094.5
45°	796.9	795.4	793.8	792.2	797.7	808.7	819.7	837.0	876.3	941.5	1020.9
47.5°	746.2	744.1	744.7	742.2	747.6	755.0	762.7	781.2	818.9	871.6	929.6
50°	709.7	708.9	708.9	708.9	710.5	719.1	726.2	740.3	774.9	827.6	869.2
52.5°	675.1	671.8	671.8	673.1	675.9	681.4	686.0	701.4	731.5	774.8	812.6
55°	620.9	614.6	613.0	614.6	616.9	621.7	626.4	639.0	664.9	697.1	719.1
57.5°	560.8	557.4	555.3	555.6	556.9	560.7	564.3	578.0	598.4	615.2	629.4
60°	518.7	520.3	513.2	514.8	514.8	517.9	523.4	532.1	549.4	561.1	575.3
62.5°	479.1	476.9	474.9	472.7	472.7	473.9	481.3	488.1	502.8	509.0	520.0
65°	417.3	417.3	412.6	414.2	415.0	409.5	413.4	421.3	430.7	433.0	443.3
67.5°	354.8	352.6	349.9	347.5	347.5	347.1	349.1	353.0	360.1	360.9	368.8
70°	312.0	310.4	309.7	307.3	304.2	308.1	305.7	309.7	313.6	314.4	319.1
72.5°	270.5	268.9	267.5	265.2	263.9	263.4	263.6	268.2	270.8	269.7	275.1
75°	211.4	209.8	208.3	204.3	204.3	202.0	202.8	205.9	209.1	206.7	211.4
77.5°	155.3	150.4	150.1	151.2	148.5	149.0	148.1	147.6	149.0	149.2	153.4
80°	119.5	114.0	115.5	114.7	114.0	113.2	111.6	112.4	113.2	114.0	116.3
82.5°	86.1	85.7	84.1	83.9	83.2	81.1	80.2	81.6	82.4	81.9	83.6
85°	44.0	41.7	43.2	42.4	43.2	42.4	40.1	40.1	41.7	40.9	42.4
87.5°	18.2	18.0	16.8	16.9	15.7	15.7	14.6	14.7	14.9	14.5	15.3
90°	25.0	24.1	21.2	18.3	15.4	12.5	9.9	7.7	5.5	3.2	1.0
92.5°	27.1	25.7	23.5	21.3	19.2	17.0	16.2	16.8	17.4	18.1	18.7
95°	32.7	31.1	28.7	26.2	23.8	21.3	24.7	33.8	43.0	52.1	61.3
97.5°	34.1	32.3	48.4	64.5	80.6	96.6	106.7	110.8	114.9	119.0	123.1
100°	34.9	33.1	68.0	102.8	137.6	172.4	187.6	183.1	178.7	174.2	169.7
102.5°	60.6	66.1	104.1	142.2	180.2	218.2	235.6	232.4	229.2	226.0	222.8
105°	180.5	220.0	240.1	260.1	280.2	300.3	309.1	306.7	304.2	301.8	299.3
107.5°	374.2	403.2	400.0	396.8	393.7	390.5	387.9	386.0	384.0	382.0	380.1
110°	445.6	453.0	450.5	448.1	445.6	443.2	441.0	439.3	437.5	435.7	433.9



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	503.7	503.6	501.2	498.7	496.2	493.8	491.8	490.2	488.5	486.9	485.3
115°	578.8	576.5	574.5	572.5	570.5	568.5	566.8	565.5	564.1	562.8	561.5
117.5°	649.0	647.2	646.2	645.2	644.2	643.1	641.8	640.1	638.5	636.8	635.2
120°	694.8	693.0	692.4	691.7	691.0	690.4	689.0	687.0	685.0	683.0	681.0
122.5°	740.1	738.8	738.0	737.1	736.3	735.4	734.2	732.5	730.9	729.2	727.6
125°	804.0	803.5	802.6	801.7	800.8	800.0	798.6	796.8	795.0	793.3	791.5
127.5°	866.9	866.2	865.1	864.1	863.0	861.9	860.5	858.7	856.9	855.1	853.3
130°	904.9	904.0	903.1	902.2	901.3	900.4	899.1	897.3	895.5	893.7	891.9
132.5°	941.0	940.1	939.4	938.7	938.0	937.3	936.0	934.2	932.4	930.7	928.9
135°	996.0	995.4	994.5	993.6	992.7	991.8	990.7	989.3	988.0	986.7	985.3
137.5°	1044.4	1043.4	1042.9	1042.4	1041.9	1041.4	1040.3	1038.6	1036.9	1035.2	1033.5
140°	1075.6	1074.7	1074.0	1073.4	1072.7	1072.0	1071.0	1069.7	1068.4	1067.0	1065.7
142.5°	1105.2	1104.4	1103.8	1103.1	1102.4	1101.8	1100.8	1099.4	1098.1	1096.7	1095.4
145°	1146.5	1146.0	1145.6	1145.1	1144.7	1144.2	1143.2	1141.7	1140.1	1138.5	1137.0
147.5°	1183.2	1182.8	1182.3	1181.9	1181.4	1181.0	1180.3	1179.2	1178.2	1177.2	1176.2
150°	1205.7	1205.3	1204.8	1204.4	1203.9	1203.5	1202.9	1202.3	1201.6	1200.9	1200.3
152.5°	1225.4	1224.6	1224.3	1224.0	1223.8	1223.5	1223.2	1222.9	1222.6	1222.3	1222.0
155°	1252.6	1251.5	1251.3	1251.0	1250.8	1250.6	1250.7	1251.2	1251.6	1252.0	1252.5
157.5°	1276.3	1275.0	1275.2	1275.4	1275.7	1275.9	1276.0	1276.1	1276.1	1276.2	1276.2
160°	1290.0	1288.7	1288.9	1289.1	1289.3	1289.5	1289.8	1290.0	1290.2	1290.4	1290.7
162.5°	1302.2	1300.7	1300.9	1301.2	1301.4	1301.6	1302.0	1302.6	1303.2	1303.7	1304.3
165°	1318.6	1316.8	1317.0	1317.2	1317.4	1317.7	1318.1	1318.8	1319.5	1320.1	1320.8
167.5°	1331.4	1329.6	1329.6	1329.6	1329.6	1329.6	1330.1	1331.0	1331.9	1332.8	1333.6
170°	1338.6	1336.9	1336.9	1336.9	1336.9	1336.9	1337.3	1338.2	1339.1	1340.0	1340.9
172.5°	1343.5	1341.7	1341.5	1341.3	1341.1	1341.0	1341.4	1342.5	1343.6	1344.6	1345.7
175°	1349.5	1347.9	1347.7	1347.5	1347.2	1347.0	1347.5	1348.6	1349.7	1350.8	1351.9
177.5°	1351.8	1350.3	1350.1	1350.0	1349.8	1349.6	1350.0	1350.9	1351.8	1352.6	1353.5
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



TEST NUMBER: P332222

CATALOG NUMBER: S123DIW-S1165D1030U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1632.2	1635.3	1646.0	1653.6	1662.4	1667.4	1672.4	1676.2	1681.2	1682.5	1700.7
5°	1639.4	1655.2	1682.7	1703.1	1728.2	1755.7	1774.6	1783.3	1806.0	1824.9	1862.6
7.5°	1637.4	1670.9	1712.4	1755.4	1801.6	1844.4	1881.5	1925.5	1956.8	2003.8	2050.2
10°	1635.5	1680.3	1733.7	1788.8	1853.2	1912.9	1966.4	2026.1	2075.6	2140.8	2196.6
12.5°	1629.8	1684.1	1758.3	1823.3	1901.6	1984.0	2063.2	2139.9	2183.8	2292.4	2343.8
15°	1615.9	1680.3	1773.0	1872.1	1979.7	2077.2	2177.8	2258.0	2387.6	2482.7	2543.2
17.5°	1589.1	1679.4	1789.4	1908.8	2039.8	2168.2	2282.2	2403.8	2541.4	2656.4	2779.0
20°	1576.6	1675.6	1798.2	1930.2	2066.2	2211.6	2341.3	2487.4	2637.6	2750.7	2907.9
22.5°	1553.3	1665.5	1797.6	1944.7	2090.1	2240.5	2392.2	2539.6	2713.0	2868.9	3018.6
25°	1515.3	1641.0	1777.8	1942.0	2112.6	2263.5	2445.0	2640.7	2821.5	3021.9	3171.2
27.5°	1475.3	1609.6	1746.6	1899.4	2082.8	2261.9	2490.3	2711.4	2932.4	3105.5	3216.0
30°	1444.5	1575.0	1716.5	1870.5	2052.0	2265.0	2520.4	2761.7	2977.1	3125.6	3187.7
32.5°	1411.2	1543.5	1668.7	1830.3	2023.7	2263.1	2539.3	2791.3	2979.6	3078.5	3066.4
35°	1358.9	1469.7	1591.5	1747.1	1975.0	2249.3	2550.3	2793.9	2909.5	2888.3	2727.9
37.5°	1283.4	1376.6	1496.6	1666.9	1918.4	2220.2	2528.3	2711.1	2703.6	2530.8	2298.5
40°	1236.3	1315.6	1431.2	1610.4	1874.4	2201.4	2493.7	2612.4	2511.8	2270.5	1992.3
42.5°	1174.6	1247.7	1363.3	1547.5	1826.0	2163.0	2427.7	2462.1	2265.3	1987.6	1732.6
45°	1079.1	1143.5	1263.0	1453.2	1753.4	2079.5	2266.6	2182.5	1917.6	1630.8	1436.7
47.5°	976.4	1043.4	1158.3	1353.7	1648.4	1954.0	2043.1	1864.2	1592.3	1359.6	1181.4
50°	911.7	976.1	1088.5	1285.8	1577.3	1850.8	1887.8	1656.7	1406.8	1202.5	1056.3
52.5°	846.3	907.0	1017.5	1215.3	1494.4	1731.4	1708.6	1473.1	1243.3	1069.2	954.4
55°	749.0	806.4	911.7	1097.1	1351.0	1538.8	1456.3	1231.5	1041.3	906.2	818.9
57.5°	661.9	716.9	807.8	975.3	1196.0	1325.1	1220.1	1030.7	879.4	775.4	710.3
60°	602.8	651.5	738.0	893.6	1085.4	1183.6	1079.9	912.5	785.1	701.8	643.7
62.5°	546.8	589.3	669.4	810.6	977.2	1059.7	954.7	813.1	704.7	630.8	581.4
65°	462.1	500.6	571.4	681.4	818.1	873.2	782.8	668.0	583.9	528.9	495.9
67.5°	384.8	417.5	478.6	565.2	665.8	705.9	637.1	548.3	484.9	440.7	414.5
70°	333.2	361.5	409.5	484.1	575.3	605.9	541.5	468.4	422.0	386.7	362.3
72.5°	289.8	310.6	354.1	411.8	487.9	512.3	467.3	403.0	359.8	333.2	313.9
75°	220.8	238.1	266.4	312.8	365.5	379.6	345.8	305.7	276.6	257.8	242.8
77.5°	159.2	172.0	192.4	221.0	257.5	270.2	248.8	222.1	200.9	188.1	179.8
80°	120.2	130.5	147.8	171.3	193.3	200.4	187.8	167.4	152.5	145.4	138.3
82.5°	88.8	94.6	105.0	121.0	136.1	144.5	133.8	121.5	113.5	107.0	104.4
85°	44.8	47.9	52.7	58.9	68.4	71.5	67.6	64.4	59.7	55.8	55.8
87.5°	17.0	17.4	19.8	21.5	24.5	27.0	26.9	26.2	26.2	25.7	25.3
90°	3.2	5.5	7.7	9.9	12.5	15.4	18.3	21.2	24.1	25.0	25.9
92.5°	18.1	17.4	16.8	16.2	17.0	19.2	21.3	23.5	25.7	27.1	28.6
95°	52.1	43.0	33.8	24.7	21.3	23.8	26.2	28.7	31.1	32.7	34.3
97.5°	119.0	114.9	110.8	106.7	96.6	80.6	64.5	48.4	32.3	34.1	35.9
100°	174.2	178.7	183.1	187.6	172.4	137.6	102.8	68.0	33.1	34.9	36.7
102.5°	226.0	229.2	232.4	235.6	218.2	180.2	142.2	104.1	66.1	60.6	55.0
105°	301.8	304.2	306.7	309.1	300.3	280.2	260.1	240.1	220.0	180.5	141.0
107.5°	382.0	384.0	386.0	387.9	390.5	393.7	396.8	400.0	403.2	374.2	345.2
110°	435.7	437.5	439.3	441.0	443.2	445.6	448.1	450.5	453.0	445.6	438.3



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	486.9	488.5	490.2	491.8	493.8	496.2	498.7	501.2	503.6	503.7	503.9
115°	562.8	564.1	565.5	566.8	568.5	570.5	572.5	574.5	576.5	578.8	581.0
117.5°	636.8	638.5	640.1	641.8	643.1	644.2	645.2	646.2	647.2	649.0	650.8
120°	683.0	685.0	687.0	689.0	690.4	691.0	691.7	692.4	693.0	694.8	696.6
122.5°	729.2	730.9	732.5	734.2	735.4	736.3	737.1	738.0	738.8	740.1	741.3
125°	793.3	795.0	796.8	798.6	800.0	800.8	801.7	802.6	803.5	804.0	804.4
127.5°	855.1	856.9	858.7	860.5	861.9	863.0	864.1	865.1	866.2	866.9	867.6
130°	893.7	895.5	897.3	899.1	900.4	901.3	902.2	903.1	904.0	904.9	905.8
132.5°	930.7	932.4	934.2	936.0	937.3	938.0	938.7	939.4	940.1	941.0	941.9
135°	986.7	988.0	989.3	990.7	991.8	992.7	993.6	994.5	995.4	996.0	996.7
137.5°	1035.2	1036.9	1038.6	1040.3	1041.4	1041.9	1042.4	1042.9	1043.4	1044.4	1045.5
140°	1067.0	1068.4	1069.7	1071.0	1072.0	1072.7	1073.4	1074.0	1074.7	1075.6	1076.5
142.5°	1096.7	1098.1	1099.4	1100.8	1101.8	1102.4	1103.1	1103.8	1104.4	1105.2	1105.9
145°	1138.5	1140.1	1141.7	1143.2	1144.2	1144.7	1145.1	1145.6	1146.0	1146.5	1146.9
147.5°	1177.2	1178.2	1179.2	1180.3	1181.0	1181.4	1181.9	1182.3	1182.8	1183.2	1183.7
150°	1200.9	1201.6	1202.3	1202.9	1203.5	1203.9	1204.4	1204.8	1205.3	1205.7	1206.2
152.5°	1222.3	1222.6	1222.9	1223.2	1223.5	1223.8	1224.0	1224.3	1224.6	1225.4	1226.2
155°	1252.0	1251.6	1251.2	1250.7	1250.6	1250.8	1251.0	1251.3	1251.5	1252.6	1253.7
157.5°	1276.2	1276.1	1276.1	1276.0	1275.9	1275.7	1275.4	1275.2	1275.0	1276.3	1277.7
160°	1290.4	1290.2	1290.0	1289.8	1289.5	1289.3	1289.1	1288.9	1288.7	1290.0	1291.3
162.5°	1303.7	1303.2	1302.6	1302.0	1301.6	1301.4	1301.2	1300.9	1300.7	1302.2	1303.7
165°	1320.1	1319.5	1318.8	1318.1	1317.7	1317.4	1317.2	1317.0	1316.8	1318.6	1320.3
167.5°	1332.8	1331.9	1331.0	1330.1	1329.6	1329.6	1329.6	1329.6	1329.6	1331.4	1333.2
170°	1340.0	1339.1	1338.2	1337.3	1336.9	1336.9	1336.9	1336.9	1336.9	1338.6	1340.4
172.5°	1344.6	1343.6	1342.5	1341.4	1341.0	1341.1	1341.3	1341.5	1341.7	1343.5	1345.3
175°	1350.8	1349.7	1348.6	1347.5	1347.0	1347.2	1347.5	1347.7	1347.9	1349.5	1351.0
177.5°	1352.6	1351.8	1350.9	1350.0	1349.6	1349.8	1350.0	1350.1	1350.3	1351.8	1353.2
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1707.0	1707.6	1714.6	1719.6	1717.1	1720.2	1721.5
5°	1865.0	1893.3	1908.2	1919.2	1920.0	1920.8	1927.1
7.5°	2089.0	2119.3	2141.5	2175.1	2185.2	2196.6	2193.3
10°	2252.5	2297.2	2335.8	2356.2	2378.2	2410.4	2384.5
12.5°	2405.2	2484.6	2543.2	2575.0	2595.7	2602.2	2589.5
15°	2657.2	2760.9	2816.7	2815.2	2885.9	2916.6	2868.6
17.5°	2888.3	2984.0	3060.7	3100.0	3158.9	3172.0	3166.0
20°	3029.7	3134.3	3194.0	3261.6	3292.2	3319.7	3324.4
22.5°	3151.7	3245.5	3309.7	3365.9	3391.6	3404.6	3412.5
25°	3277.3	3351.2	3389.7	3409.3	3416.4	3414.8	3404.6
27.5°	3268.6	3274.3	3231.9	3190.2	3153.0	3111.0	3096.5
30°	3183.8	3117.7	2999.9	2933.1	2834.8	2757.0	2788.4
32.5°	2960.6	2829.2	2696.8	2550.8	2429.9	2395.5	2360.9
35°	2526.7	2295.7	2160.5	2003.3	1940.4	1877.6	1834.3
37.5°	2044.2	1865.5	1705.1	1602.3	1539.3	1499.5	1478.2
40°	1767.5	1606.4	1474.4	1391.1	1343.1	1298.3	1292.1
42.5°	1546.9	1397.1	1297.7	1231.4	1185.3	1166.3	1152.5
45°	1266.9	1162.4	1095.6	1048.4	1017.8	1006.0	990.3
47.5°	1072.3	998.4	948.3	916.2	893.1	884.3	883.1
50°	963.5	902.2	865.3	840.1	822.1	818.9	806.4
52.5°	881.8	828.7	799.9	777.9	764.9	756.1	752.3
55°	765.5	730.1	704.2	691.6	681.4	672.7	672.7
57.5°	669.8	640.2	623.1	612.4	609.2	603.1	599.2
60°	610.7	585.5	572.2	562.7	556.4	557.2	550.1
62.5°	552.8	536.5	523.7	514.3	506.8	506.9	507.4
65°	470.8	458.2	448.8	445.6	440.9	435.4	437.0
67.5°	398.9	387.1	379.8	374.4	372.8	369.9	374.4
70°	347.4	338.7	333.2	328.5	326.9	327.7	331.7
72.5°	300.2	294.1	290.5	288.3	284.8	285.0	287.6
75°	235.8	231.1	227.9	225.6	224.8	224.8	224.8
77.5°	173.2	172.1	170.7	167.2	167.4	168.3	168.5
80°	136.8	134.4	133.6	132.0	129.7	128.1	132.0
82.5°	102.2	99.8	99.0	98.7	95.1	94.8	98.1
85°	55.0	52.7	53.4	52.7	52.7	51.9	51.9
87.5°	24.8	24.4	23.9	24.6	24.1	23.5	24.9
90°	26.8	27.7	28.3	28.8	29.2	29.7	30.1
92.5°	30.0	31.4	32.3	32.5	32.8	33.1	33.3
95°	35.8	37.4	38.2	38.2	38.2	38.2	38.2
97.5°	37.7	39.5	40.5	40.7	40.9	41.2	41.4
100°	38.5	40.3	41.3	41.5	41.7	42.0	42.2
102.5°	49.5	43.9	41.4	41.8	42.2	42.6	43.0
105°	101.4	61.9	42.4	42.9	43.3	43.7	44.2
107.5°	316.3	287.3	257.9	228.1	198.4	168.6	138.8
110°	430.9	423.5	403.9	372.0	340.0	308.1	276.2



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	504.0	504.1	500.8	494.1	487.4	480.6	473.9
115°	583.2	585.5	587.0	587.9	588.8	589.7	590.6
117.5°	652.6	654.4	655.4	655.5	655.7	655.9	656.1
120°	698.4	700.2	701.1	701.1	701.1	701.1	701.1
122.5°	742.6	743.8	744.6	744.7	744.9	745.1	745.3
125°	804.9	805.3	805.8	806.2	806.6	807.1	807.5
127.5°	868.3	869.1	869.2	868.7	868.3	867.9	867.4
130°	906.6	907.5	907.8	907.3	906.9	906.4	906.0
132.5°	942.8	943.7	943.8	943.2	942.6	942.0	941.3
135°	997.4	998.0	998.0	997.4	996.7	996.0	995.4
137.5°	1046.6	1047.7	1048.0	1047.5	1047.1	1046.6	1046.2
140°	1077.4	1078.3	1078.5	1078.1	1077.6	1077.2	1076.7
142.5°	1106.6	1107.3	1107.3	1106.7	1106.1	1105.5	1104.8
145°	1147.4	1147.8	1148.0	1148.0	1148.0	1148.0	1148.0
147.5°	1184.1	1184.6	1184.3	1183.3	1182.2	1181.2	1180.2
150°	1206.6	1207.1	1207.0	1206.3	1205.6	1205.0	1204.3
152.5°	1227.0	1227.8	1227.7	1226.6	1225.6	1224.6	1223.6
155°	1254.8	1256.0	1255.8	1254.5	1253.2	1251.8	1250.5
157.5°	1279.0	1280.3	1280.1	1278.4	1276.7	1274.9	1273.2
160°	1292.7	1294.0	1293.9	1292.3	1290.8	1289.2	1287.6
162.5°	1305.3	1306.8	1306.8	1305.5	1304.1	1302.7	1301.3
165°	1322.1	1323.9	1324.0	1322.5	1320.9	1319.3	1317.8
167.5°	1335.0	1336.8	1336.8	1335.0	1333.2	1331.4	1329.6
170°	1342.2	1344.0	1344.0	1342.2	1340.4	1338.6	1336.9
172.5°	1347.0	1348.8	1348.7	1346.8	1344.8	1342.8	1340.9
175°	1352.6	1354.2	1354.1	1352.3	1350.5	1348.7	1346.9
177.5°	1354.6	1356.0	1355.9	1354.1	1352.3	1350.5	1348.7
180°	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9	1351.9

(END OF REPORT)